



Article

Playable Policy Design: The FuturGov Game as Means to Negotiate Future-Situated Policy Options

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Abstract

Situated in the context of the increased integration of foresight and citizen engagement in European policy developments, this paper outlines the FuturGov game and the game's potential to develop futures and political literacy through leveraging the 'safe spaces' for engagement that the game creates. We argue that the use of FuturGov game could lead to enhanced understanding of power dynamics in society and active citizenship. Five possible applications of the game are examined: scenario immersion through role playing; development of deliberation skills; development of negotiation and persuasion skills; educational and research tool; and identification of unique stakeholder goals.

Keywords

Serious games, Futures, Futures literacy, Political literacy, Citizen engagement

Introduction

The evolution of governance systems has been the site of much past and contemporary research, given the growing recognition of the importance of foresight and design for policy and decision making. For some scholars, like Bruce Tonn (Tonn, 1991; 1996, 2012; 2018) or Jim Dator (Dator, 1981; 1998, 2001; 2012; 2019), the future-orientation of governance, or lack thereof, remains a problem of both system design and cultural principles. Stretching back to the inception of the field in the late 1960s and early 1970s, scholars in futures studies have been studying and discussing politics of the futures, i.e. the relations between knowledge, power and the images of the future in the socio-political and cultural context, ideology and social order (e.g. Polak, 1973; Van Steenberg, 1970). With the realization of the socio-political importance of a society's "image of the future" (Bell and Mau, 1971), and the "colonization" of these images by economic and political powers (Dator, 1975/2005), efforts to make the development of these images more participatory and inclusive can be traced across futures long history in project like Mankind 2000 (Galtung and Jungk 1969), Hawaii 2000 (Chaplin and Paige, 1970), and examples found in Clem Bezold's Anticipatory Democracy (Bezold, 1978). While a full history of the histories relating the integration of foresight and governance is well beyond the scope of this paper (given that futures research worth its salt inevitably confronts aspects of governance at some scale), it is important to note that this pursuit has been the focus of many generations of futures researchers. Indeed, we can briefly trace these developments across time and space through the literature with the development of futures research in Finland (Mannermaa, 1986, Mannermaa et al, 2006), to Australia (Slaughter, 1991, 2002, 2012), with many notable points of interest along the way, such as post-normal times (Sardar, 1993, 1996, 2015), and an action research based mode of futures development (Ramos 2002, 2014, 2017) to encourage more and different kinds of futures (Curry and Schultz, 2009). We might speculate that those continuous efforts have resulted in the growing movement to both institutionalize futures research and integrate foresight into governance systems.

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More recently, governments around the world started including foresight, design and citizen engagement into policymaking, with the EU specifically adopting these approaches. For example, the renewed Better Regulation toolbox of the European Commission mentions using foresight (more specifically scenarios and megatrends) for its impact assessment of policy initiatives (European Commission, 2021). The Better Regulation Toolbox is indicative of a wider effort by the European Commission to expand foresight across its internal governance systems. Similarly, many national, regional or local governments have integrated strategic foresight in their policymaking (Kuosa, 2010, 2016), and the United Nations has increasingly looked to promote “Futures Literacy” in continuation of developing a more anticipatory approach to policy (Miller, 2018). Design is also present, although to a smaller degree (e.g. UK Policy lab, EU Policy lab). In parallel, there are different initiatives aiming at having larger inclusion of citizens in the policymaking processes (e.g. in Ireland, Estonia, Luxembourg). This is often perceived as a possibility to revitalize democracy, increase trust in political institutions and increase the range of public voices in the public sphere.

Given the growing resonance between the fields of design and futures, and the hybrid forms of practice that have accompanied this complementarity (Candy and Potter, 2019; Kimbell, 2019; Zamenopoulos and Alexiou, 2020), the *Future of Government 2030+: A citizen-centric perspective on new government models* research project combined foresight and speculative design methods to examine new models of governance that could emerge from changes in social, political and technological trends (Vesnic-Alujevic et al., 2019). Integral to the project’s outreach, a serious game was designed as a mode of public engagement that increases ‘futures literacy’ (Miller, 2007) - the ability to better use the future - while soliciting citizen input for anticipatory policy, as well as ‘political literacy’ (understanding how political institutions and governments work) (Bochel, 2009).

This paper presents a review of the FuturGov game’s design, use-cases, and participant feedback to better locate its utility as a publicly facing, future-oriented, anticipatory policy tool. Toward this end, we explore the potential of serious games to enhance and enable futures literacy for policy design through deliberation on policy issues. While the FuturGov game and its overarching project were focused on its relevance within the context of the EU, we argue that the game-based medium bridging futures literacy and policy design contributes to the creation of new knowledge in a more general sense (Knowles, 2015; Chen and Hoffman, 2017; Pflanzl et al., 2016), as it encourages active citizens through new modes of experiential learning, and enables the articulation of perspectives that may be marginalized by other forms of participation, but for whom games and play provide a productive ‘safe space’ (Salen, et al., 2003; Mayer, 2009)). Building on this, the paper contributes to the literature at the intersection of design and foresight within the context of participatory policy development. In presenting our reflections on best practices for using the FuturGov game, we review insights gained from participant feedback that help clarify the capacities of role-playing games to facilitate immersion into the future, and foster collaborations between different societal actors.

While reflecting more broadly about the politics of such an initiative, through the game we can take an agonistic approach to the examination of citizen participation in policymaking, its place and capacities within governing institutions, and as a compliment to participatory design practice. In this context, the game offers a space for a democratic debate to emerge that does not necessarily lead to consensus. Instead, it might lead to confrontations and an agonistic public space (Mouffe, 2005), thus promoting openness to pluralism of ideas and different opinions (Glover, 2012).

We begin by locating the FuturGov game within the field of emergent practices stemming from the design and futures convergence. Given the wide range of methodological advancement that this convergence has generated - for example, experiential scenarios (Candy, 2010; Candy and Dunagan, 2017), speculative design (Dunne and Raby, 2013), hybrid live action role playing with mixed reality (Sweeney and Rosa, 2019), future policy studios (Kimbell, 2019) - we focus on games and interactive systems that are designed to foster futures literacy and enable participants to engage in future-oriented policy design and related activities. This paper provides a theoretical foundation for integrating a ‘playful’ approach to citizen engagement for future-oriented policy. This foundation allows for a more focused examination of the components and mechanics of the FuturGov game, each designed to engage participants in the utilization of different faculties and strategic modes. Through this examination, we hope to provide the academic community with some guidance that addresses basic questions:

- How can the FuturGov game be used in a number of different contexts and configurations of participants with the goal of increasing futures and political literacies?
- How might researchers, teachers and practitioners best utilize the FuturGov game within the context of their work?

Futures Literacy: Accessible and Inclusive Policy Experimentation

Principles of futures literacy as game design parameters

In Miller (2007), the conceptual development of futures literacy (FL) is fundamentally defined as “the capacity to explore the potential of the present to give rise to the future by developing and interpreting stories about possible, probable and desirable futures.” By imagining different futures and using different ways of anticipation, it is possible to change what we do in the present. Being future literate, thus, means being able to understand the nature and role of future’s assumptions (why and how futures are imagined) and apply anticipatory systems (Miller, 2018). Elements from the FL framework (Miller, 2018) were utilized as a set of design parameters for the development of the FuturGov game, including 1) constructing a learning process that enables people to use the future in context specific ways, 2) provide an exercise for developing the future-oriented ‘rigorous imagination’, and 3) developing futures literacy for research purposes. However, we were particularly inspired to create a system that engaged with Miller’s definition of *anticipatory assumption* fields, so as to design a method that can probe novelty (semi-open systems, unique to context), and might also be found scalable given future policy experimentation and additional gaming sessions.

The anticipatory branch of futures work builds from Roberto Poli’s ongoing body of work (Poli, 2014, 2019), carves out a unique approach by leveraging future-oriented transitions in the fields of psychology and economic behavior patterns. This new mode of Anticipation is aligned with trying to better understand how individuals and organizations ‘use the future’, and their capacity to imagine in the present à la Futures Literacy. Drawing on this understanding of anticipation, we employ the role-playing component of the FuturGov game to deepen rigorous imagination, enable understanding of different perspectives, and expand the utility of future scenarios across contexts. In short, through the development of a serious game, we wish to make the project’s future scenarios better understood, and open to providing participants with new insights (Inayatullah, 2017), as will be better clarified in the next section.

Novel methods to broaden accessibility and inclusivity in policy design

We observe a growing experimentation with novel participatory forms in policymaking that recognize citizen engagement (through deliberation or other forms) as a “sum of political and social practices, by which individuals engage with and influence public affairs” (Ampatzidou et al., 2018). Along with citizen engagement, the convergence of the fields of futures and design aligns with methodological development of ‘experiential futures’ and foresight’s ‘experiential turn’ (Candy, 2010; Candy et al., 2016). We interpret it as the fusion of elements of design practice and futures research within an accessible activity that enables a multi-sensory imagination of a possible future scenario.

As noted in the introduction, the inclusion of citizens within futures and foresight work has a long tradition that set the proverbial stage for experiential futures by demonstrating the value of more participatory futures practice, and encouraging the development of innovative methods to create broader and more accessible forms of futures engagement. In our view, the active design of future-oriented experiences - through the development of games, immersive theater, and other media and interactive systems - can create broader societal futures literacy by fostering accessible engagement with future scenarios.

Games, in particular, can help provide safe space for discussions that deepen understanding of different perspectives within alternative futures (Inayatullah, 2013, 2017), as gameplay is often marked by its removal from the ‘real world’ and the voluntary acceptance of the ‘game world’. We view the type of generative cross-pollination

of ideas encapsulated by the idea of the ‘experiential turn’ to be an inspiring approach to the integration of design praxis, foresight, and policy work - as it supports initiatives that seek to broaden inclusion by through the intentional design of accessible activities that can account for the nuance of complex processes by which policy and our futures are negotiated without demanding participants be steeped in the terminology and practice of either.

Just as our mobile phones are designed so that we do not require advanced computing degrees to operate them, we asked ourselves if it is possible that future-oriented research and policymaking can be designed to enable broad usage for non-experts? The design of the FuturGov game follows Kimbell’s (2019) assertion that material deliberation and anticipatory learning in policy-futures-design settings (“policy futures studios”) can enable strategic conversations in public policymaking and beyond. By making uncertainties perceivable and graspable, the FuturGov game increases engagement “with the potential to open up participation and reflexivity in discussions about public policy issues and anticipate ways to address them, beyond public administrations” (Kimbell and Vesnic-Alujevic, 2020).

Anticipatory Role-playing through Games

Games with future-oriented goals

We recognize that games have a long rich tradition as a useful medium within the practice of futures and foresight, as has been well documented through detailed accounts of the Polak Game (Hayward and Candy, 2017; Inayatullah, 2017; Abdullah, 2016; Kozubaev, 2014), the Sarkar Game (Hayward and Voros 2004, 2006; Inayatullah 2013, 2017), the CLA ‘game’ (Inayatullah, 2017b), and The Thing From The Future (Candy, 2015, 2018; Miller, 2018). While each of these games uses different configurations of game mechanics, player interactions, and a variety of elements (props, cards, spatial divisions, etc.) the common thread between them is the development of personal experiences that make use of ‘the future’ as a mode of generating reflection on the present. As serious games continue to gain traction within the context of alternative futures research (Dator, 2016) and strategic foresight, they serve a dual purpose aligned with Khaled and Vaslou (2014): “..., they (serious games) are expected to entertain, motivate and engage. As learning technologies, they must appropriately embody domain knowledge and sound pedagogical principles”. Knowles (2015) argues that games are a valuable tool for exploring public policies and explaining how large and complex systems, such as policymaking, work. For example, in the area of environmental policy, Edwards *et al.* (2019) propose the use of serious games for adaptive governance mechanisms in conditions of uncertainty and change of complex socio-ecological systems where flexibility, mutual understanding, and collaboration are among the most important. Their added value is seen through providing a “pathway for experiential learning and adaptation by different actors, providing a safe innovation space for experimentation” (Edwards *et al.*, 2019).

Through citizen involvement in participatory policymaking and co-design of policies that can be achieved via policy-oriented serious games, governments could offer better quality services that satisfy citizen needs and increase their transparency and clarity (Pflanz *et al.*, 2016). For example, the outcome of such games can show how different actors react to different policy interventions, which could be particularly useful “at the stage of policy formulation to test the architecture of a new regulation in a safe environment” (Olejniczak *et al.*, 2018). Indeed, Ampatzidou *et al.* (2018) confirm the opportunity for games to attract citizens to engage in debate on many issues, develop their citizenship skills (i.e. political literacy) and improve decision-making processes although they should not be seen as a panacea or “as being a magic bullet in current governance debates”. An example of the co-creation of human centered public services and “fresh perspectives for public organizations” through the use of co-designed sessions with the city of Helsinki that used the games’ structure (Homlid *et al.*, 2015). Similarly, Lerner (2014) argues that through playful interactions, well-designed games can make democratic participation and engagement more pleasant and interesting, and help overcome citizen disengagement and distrust in politics. This sort of engagement could offer the “empowered engagement opportunities”, with equal power distribution among the participants, a key element of participatory democracy (Gastil and Broghammer, 2021; Pateman, 1970).

As we know from the work of many scholars, serious games to address foresight and futures work should allow

participants to become more critical, reflective and creative about the world around them (Inayatullah, 2017), as well as more literate in different domains (e.g. futures literate or politically literate) (Miller, 2018). It can, thus, be useful as a source of learning and capacity-building (Crookall, 2010). A serious foresight game should also offer exploration of alternative worlds, interaction with artefacts, as well as testing ideas and strategies (Chen and Hoffman, 2017). In a similar fashion are design games, whose main function is “sensitizing the imagination and facilitating exploration in co-design setting” (Holmlid et al., 2015), and often use other design practices such as scenarios (Brandt and Messeter, 2004). In fact, “the core of designing is to envision possible futures. For projects to be successful it seems important to rapidly be able to explore not only one but several imaginary futures.” (Brandt, 2006:62).

If, following Candy (2018), a game brings an opportunity to think “divergently (in terms of multiple alternatives) as well as concretely (as opposed to vaguely or abstractly) about possible futures”, then the goals of the game must be designed to accommodate both modes of thinking. In the FuturGov game system, goal setting is generated by each player as they interpret the interaction between their role and scenario. For example, a player in the role of ‘IT specialist’ might perceive goals differently in a scenario with high-levels of digital governance, as opposed to a scenario with social values defined by physical interactions. By giving participants the opportunity to define their own goals, the game system incentivizes rigorous imagination concerning both the role and the scenario.

Performative roleplaying

As modes of engagement and participation in forward looking activities have evolved, so too have the expectations for the participant. One particular expectation that the FuturGov game has embedded in its design is that of performative role-playing (Kuzmanovic and Gaffney, 2017). In our understanding of ‘experiential’ futures modes - lending a participant a future persona allows them to more quickly orient within a future scenario, and develop a perspective and approach to situations with a situation or scenario (Candy and Dunagan, 2017).

The FuturGov system encourages role-playing through the establishment of a series of social actor archetypes - “characters [that] have their own goals, limitations, societal positions, character traits, and more – offering those engaging with games unique opportunities to see future worlds and systems from a subjective point of view” (Rumore et al., 2016; Vervoort et al., 2012). The archetypes were chosen based on the project’s different scenarios, and reflected some of the dynamic issues and social actors that provided key differentiation points in the scenario narratives. By encoding these potentials within the game’s personas, our intention was to encourage participants to reflect on the opportunities to enact change that gameplay might present. While this mode of role-playing is more constrained when compared to the archetypes presented in the Sarkar game, they still serve an important narrative purpose for enabling a deeper player experience of an alternative future (Milojevic 2015).

FuturGov game

Game overview

This is a board game that can be played by 4-8 participants. Each player chooses one role (from 2 that are given to them). The game sets an objective for players to become the most influential by amplifying one's limited power through collaborations with other players. There are three phases of the game:

1. Immersion into the future

Each participant is asked to take on and define the role of an archetypal citizen in 2030 and gameplay context is set within one of the four future scenarios developed through the project. Within the scenario they are given, the players discover four draft policies that are under consideration. After learning about the scenario world in which the gameplay will take place, and the policies under consideration, participants enter into mediated conversations that reveal their anticipatory assumptions and expose them to other participants’ beliefs and expectations. This discussion enables players to more readily define their role within the future, and actively begin the process of understanding the topology of relations that exist.

2. Setting objectives and strategizing to reach them

Once each participant is acquainted with his actor card, they must define their objective and set their strategy to have maximum impact on the legislative proposal in each round and get the highest number of points. In order to increase a player's influence (the 'win' metric), each participant will need to take a position: to accept, reject or try to amend the policies under consideration within the scenario based on their role/persona and goals they set. Participants create strategies (partnering, amending, refuting) to have maximum impact on the legislative proposal expressed in points obtained. Their goal is to be the most influential player of the game, in the course of reaching their objective. To strengthen their position, each player should negotiate a collaboration with other players. This mechanic is formally incentivized in the point-based game economy. Through the collaborations and negotiations (to support each other), conversations emerge. Turn-based gameplay progresses through rounds of player actions that articulate their goal-seeking strategies and track individual successes through the exchanges within the game economy.

3. Reflection

At the end of the four rounds, the players discuss the future scenario and their own fears, hopes and objectives. They talk about the winner's strategy and the impact they all had on draft policies. They may also determine the impact of their play on the draft policy in each round; *has it been adopted, amended or rejected?* This phase is particularly interesting if there are two or more tables playing with the same scenario and draft policy cards as they usually accept, reject or amend different policies with different views.

The game ends with a reflection on different governance models, lessons learned and opportunities and challenges offered through the system.

Method and research design

The FuturGov game was developed at the EU Policy Lab through a design-led process that included aspects of foresight in the period July 2018 - September 2019. As the design of the tool relies on an iterative process of test and trial, co-design, as in a *moving process* (Thackara, 2006) has been applied at two levels: within the interdisciplinary group of the EU Policy Lab and through the workshops/testing sessions done at different stages of the game development with various groups of people. The ambition of the project was to transform and expand the classical output of this approach to research projects, consisting of a final report and its launch, into a process exemplifying the interdisciplinary and experimental characteristics of the EU Policy Lab.

The game has gone through a nearly one year testing phase involving various players, such as policy officers; researchers; civil society organizations; business representatives; students from faculties of design, public administration and political science. More than 15 sessions took place gathering 4 to 40 participants, in seven different countries: Belgium, Croatia, France, Germany, Italy, Luxembourg, Norway and Sweden. More sessions were scheduled but canceled due to the COVID-19 pandemics and a couple have been held online. Each game has been supervised and moderated by one or several members of the core team.

The number of participants varied at the beginning. We started with 3-4 players and slowly increased the number reaching over 10 persons per board where a role would be played in pairs. However, pairs or even bigger groups playing one role lead to longer time needed to reach agreements inside of their own group and then with other players. Based on these insights, the number was later fixed to 6-8 players per board. The duration of the game was, in a similar way, limited to approximately 2 hours, to be used in different settings and with the limited time frame (such as classes, workshops, citizen engagement sessions). However, if more time is available, useful and important discussions can be developed in the reflection part where implications and connection to the present can be made and a space for action can be created.

The use of a point system creates an underlying game economy, and makes the goals of the game more clear for participants. The point system is weighted to formally incentivize participant generated policy amendments and inter-stakeholder group collaboration. Throughout our refinement process, we found that active engagement in these processes leads to richer discussions and negotiations surrounding the policy proposals under question.

At the end of each session, there was approximately 30 minutes for discussion with participants in order to obtain their feedback. Based on their feedback as well as moderators' own notes, new iterations were created at the EU

Policy Lab before a new testing session was conducted. This confirms Crookall's (2010) opinion on the importance of the feedback discussion after the game "for the construction of meanings and social knowledge".

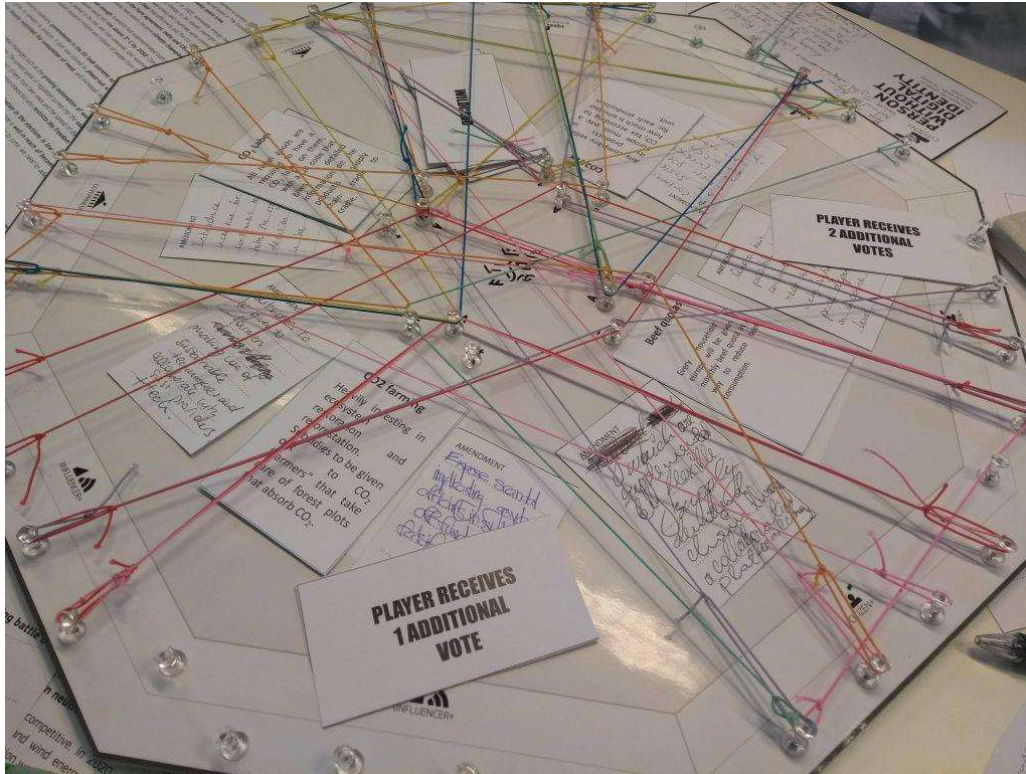


Fig. 1: FuturGov game session at the Joint Reserch Centre, Brussels, September 2019



Fig 2: FuturGov game session at the Eurocities Knowledge Forum, Cologne, November 2019

Applications, contexts, and best practices for FuturGov

Throughout the refinement phase, the richness of questions and proposals that arose from interacting with citizens, students, researchers, policymakers and policy officers, civil society organizations, and business representatives, confirmed the potential of creating an engagement tool in order to imagine new forms of government and approaches to policy making.

At the end of each session, we collected oral and written feedback that served to improve game design. This feedback has been integrated into the analysis of the game applications outlined below. We have identified five possible applications:

1. Scenario immersion through role playing
2. Development of deliberation skills
3. Development of negotiation and persuasion skills
4. Educational and research tool
5. Identify Unique Stakeholder Goals

Application 1. Scenario Immersion through role playing

Application description

The game immerses the participants into future scenarios with a role and requisite knowledge about the scenario world. It enables reflection on hopes, fears and expectations about the future, and stimulates the imagination of the participants, creating the conditions from which novel responses to alternative futures can emerge, as well as “an enduring sense of what ‘our’ future could be starts to emerge” (Hayward and Candy, 2017).

We agree with Kimbell (2019) that “creative methods can enable people to participate in assessing how things are, in ways that are meaningful to them, and imagining how things could be different”. Similarly, Alexiou et al. (2012) argue that such type of engagement “creates an urge for exploration, openness to new experiences and information that naturally lead to personal growth” (Alexiou et al., 2012). Therefore, this kind of games could also be used as a “safe space” to enable experimentation and conversation among a group of people (Alexiou et al., 2012; Edwards et al., 2019).

Participant Feedback

Participants were in general very positive about role-playing, especially those that are not familiar with this type of group exercise and games, as having a different role allowed them “to see the world from another perspective and step in the shoes of another person”. Many respondents stated that the game helped forge new ways to consider life experiences from an unfamiliar point of view and also be more creative. Likewise, participants said that taking on a new persona opened pathways to thinking beyond self-interest, and understand better their decisions as a reflection of society at large. Additional feedback suggested that the role playing elements of the game could be useful for “people from public administration to see another perspective,” and this feedback encouraged further development of the roles and their respective capacities.

Participants also stressed the possibility of using the game as an “ice breaker” or a “safe space” to enable experimentation and people who do not know each other to engage quickly in conversation with others about possible futures and increase their creativity through role playing. This was tested at the beginning of a participatory workshop that explored implications of the project’s scenarios with 19 stakeholders, including policy officers, business, civil society, academia from different EU Member States who did not know each other before the workshop. It resulted in enabling the players to get to know each other whilst immersing them into the future - the two main goals of the workshop. One player even stated, “I found it quite interesting to analyze (after playing) what people think are the most influential people/institutions in certain decision-making for specific laws.”

Best practices:

- Pre-defined roles and a few hints help the participants imagine and get into their role faster and in an easier way
- Using forward-looking setting and provocative draft policies give players more freedom in thinking outside of frames and being creative
- The game can be used as an ice-breaker to start conversations
- The game has the potential to support and develop futures literacy

Application 2. Deliberation skills**Application description**

Initially envisaged as an engagement tool to produce conversations about futures and future power relations, in transitioning the original tool to a more game-based system, it was critical that the original intentions remained central to play activities. While testing different versions of the game, it became clear that through projecting the participants into a future, the game provides a good means for deliberation and discussion of different topics - even those that raise lots of tensions in the present. Delli Carpini et al. (2004) argue that while other authors often neglect conversation and dialogue among citizens as a form of political participation, it is equally important because these kind of practices “provide the opportunity for individuals to develop and express their views, learn the positions of others, identify shared concerns and preferences, and come to understand and reach judgments about matters of public concern”. Through them, the participants are able to argue and negotiate different values, interests and divisions in society, as well as express their disagreements. Similarly, Kimbell (2019) argues that this type of engagement exercise can lead not only to participation and creativity of the players, but also reveal and unfold ‘difficult’ questions that in the domain of policymaking can relate to institutional functioning.

Also central to the system’s design is the creation of a visual record of the group’s interactions as part of gameplay - this drove the design using strings to record which players (and roles) were engaging with, and how collaborations and policy amendments emerge from player conversation. From a facilitator or researcher standpoint, these physical connections provide a unique data set that can be easily captured and analyzed. Here we borrow the concept of material deliberation (Davies et al., 2012) from the field of Science and Technology Studies. Material deliberation is in particular important for those processes that go beyond discursive models, through embedding the material and affective in it. By building strings between different actors and between different *affective* actions, participants have the opportunity to touch and see futures as appearing in front of their eyes through playing the game.

Participant Feedback

Participants saw the benefit of game mechanics for deliberations from early on in game development. They perceived FuturGov game as important for stimulating dialogues while being “more open towards less framed modes of thinking”. According to the players, the system is effective in opening conversations in a group of people and engaging people “in all sorts of (policy) discussions” and provoking and producing reflective dialogue: “Overall, once people got the hang of it, it sparked some really lively and fascinating debates”. While the physical connection between the players and their actions (the string) helps participants and facilitators track the complex interactions across game play, as a sort of a ‘living record’, it simultaneously is viewed as enabling new modes of thinking and solution finding through material deliberations.

Testing the game in the online settings offered us the possibility to compare it with the offline settings. In terms of deliberation, we noticed that conversations are richer and more spontaneous in the real-life world compared to the online session where they need to be relatively heavily moderated. For example, in the online settings, a facilitator needs to make sure that a person is in their role, in the future, in a scenario and ask questions about possible actions as a sort of interlocutor - while in real life settings, there is no need for that.

Best practices:

- Using visuals such as colored strings stimulates the conversations
- The colored strings make the deliberations among players more material and affective and shows to players how they can build and impact the network of intertwined relations between societal actors in a system
- Better-quality deliberation is obtained in the real-world compared to the online settings

Application 3. Negotiation and Persuasion Skills**Application description**

It is interesting to note that the system encourages negotiation and compromise, in part due to the game economy framework. It becomes evident very early on, that building support for an idea is a critical activity for successful game play, and that negotiation skills are almost like a super power. After the introduction of points, which raised the competitiveness among players, negotiation skills became important, especially when a player proposes a policy amendment, needs to persuade the others and obtains a 50% support for the amendment to pass.

Through in-game negotiations, many players became more aware of how difficult it might be to reach “an agreement, a common decision or a compromise” within a context with real consequences. By stepping into their character’s role i.e. other people’s perspectives that can often be far away from their real life, participants are discovering how they can learn from the others and negotiate even if in the real life (Milojevic and Inayatullah, 2015). This is in line with the role of foresight seen as a negotiation process that “deals with potential future societal change” (Kristof, 2013).

Participant Feedback

According to the participants in the FuturGov game sessions, the game demonstrated the capacity to develop both negotiation and persuasion skills and put them “in practice”.

Through in-game persuasion, players experience the difficulties to come up with persuasive storytelling to gain trust of others and credibility and have them open up to different solutions and perspectives. However, while trying to persuade other players, they also learn that the only possibility to ‘win’, i.e. earn points, is through collaboration with other societal actors. This is achieved with negotiations that help them find preferred future outcomes. This is also stimulated through game economy - more points are given if participants collaborate with each other.

An interesting comment by one of the game players was that while developing negotiation skills, FuturGov game also develops empathy: “I liked that it made you reflect on how to debate and how to better bring your point forward, but also be empathetic towards your character and their situation”. The empathy and the creation of emotional bonds with their and other people’s roles, help opening to different perspectives and motivations. It is connected on one hand with material deliberation as discussed above (Davies et al., 2012), but also the nature of foresight asking for cooperation and empathy (Klisanin, 2013).

Best practices:

- Through the introduction of points and policy amendments, players started using their negotiation skills systematically
- Limiting time per round negatively affects negotiation and debate among the players, as it can cut an interesting conversation in the middle

Application 4. Educational and research tool

Application description

Serious games have the potential “to motivate, engage and enable learning” (Pflanzl et al., 2016). They can stimulate collective intelligence creation and social collaboration, in that it offers the possibility to explore how decisions are made, and how laws are discussed, thus to engage with complex systems and learn about them (Knowles, 2015). The importance of engagement also was stressed by Bell (1998), who wrote about “people as active, purposeful and innovative beings whose future-oriented behavior helps create not only their own future but also the social order itself”. Gameplay gives participants an opportunity to learn about the repercussions of their decisions, learn about policymaking processes, and motivate them to be more engaged. This ‘playful experiential learning’ also helps create collaborative pathways to solve future challenges. Through “learning by doing”, civic commitment and civic action and engagement that can emerge from these exercises are particularly valuable. They contribute to the development of political literacy and citizenship, which can be important for young and especially politically disengaged people. By transforming players into “problem solvers”, they “learn and change their understanding of policy issues and strategies. Furthermore, games are designed as emotionally engaging experiences that offer immediate feedback and that is highly compatible with human learning.” (Olejniczak et al., 2020).

Through different rounds, the game can also produce insight in people's actions and cognitive biases. This is important for public policies' design as it can contribute to understanding the needs of people and co-design more effective public policies accordingly. It is equally important for the field of futures literacy, as it provides exploration of people's anticipatory assumptions and makes them aware about assumptions about the future they have, so that they “view uncertainty as a resource”. Consequently, it points to the ability of people to anticipate by understanding, shaping and inventing new assumptions (Larsen et al., 2020; Miller, 2018).

For the development of futures literacy, it is important to tackle, overcome and abandon biases, assumptions and familiar patterns, based on past experiences, such as applying forecasting methods, extrapolations and models that are heavily dependent on the past (Miller, 2007, Bryson et al., 2016, Schirrmeister et al., 2020). In parallel, Schirrmeister et al. (2020) argue that “cognitive heuristics offer possibilities to inspire collective intelligence, creativity, and the immersion into diverse futures.” (Schirrmeister et al., 2020)

Participant Feedback

As different individual goals and group conversations emerge, it is valuable to explore, compare and assess different strategies and differences in role perceptions. As one participant put it: “I for one really enjoyed our post-game meta-level discussion of the game as it offered a different level of learning experiences”. This and similar feedback provided evidence that the game can be used as a powerful education tool (“policy learning” as one player stressed), particularly when participants are brought together to discuss and reflect on the roles they play and actions taken. Some participants directly linked the use of the FuturGov system to educational goals, stating: “Where the game could be very useful: active learning of young people; how to have them more engaged in policy making”. Also, through showing the limits and freedoms of an imagined system, players are able to think of “how it can be overthrown” or made better than it is, and how it can enable players to resist hegemonic practices.

At one FuturGov game session organized in May 2019, the partner lecturer was interested in testing the research potential of the tool, and asked her students to fill in a pre-game anonymous survey to see their interest in politics, ideological positioning, trust in political institutions, and trust in technology. In this session (as well as in some others), it was agreed to have at least two tables playing the same scenario. The goal was to compare the results afterwards to better understand the game's potential as an education and research platform based on different user bases and contexts. By comparing the outcome of the game to the pre-survey, it became visible that this could be used as a research tool to explore opinions, attitudes and expectations of the players (similar to e.g. focus groups).

Best Practices:

- The use of game in the classroom for engaging with students can bring an added value to teaching and bring in an innovative approach to citizenship education and political literacy
- The game can be used as a research tool in audience research or similar fields if the feedback is systematically collected. A pre-survey could be helpful to foster the obtained results.

Application 5. Identify Unique Stakeholder Goals**Application description**

An important aspect of gameplay centers on encouraging players to develop a strategic plan of action, and articulate what they hope to achieve with respect to proposed policy. These articulations are highly dependent on the role that the player has adopted for gameplay, given the different motivators, status, and capacities of different roles in different scenarios. More importantly, building the capacity to both articulate and pursue goals is an essential skill for participants to hone, and helps to demonstrate how resonating or conflicting goals between players can lead to collaboration or compromise.

While the developed scenarios have played a distinct role in shaping the current content of the game, the player interaction that the game stimulates might also be provoked through gameplay involving different sets of alternative future scenarios or situations. The conversational qualities and spaces for critical reflections offered by the game can be extended to a wide range of customized topics and applications. The game can be used to test ideas about actions and strategies towards goal achievement that mirror real world situations, and enable players to discover whether or not their strategies would work, how other players might be allies or enemies, and what options exist as gameplay progresses. Through this, the game can be used as a structure to engage the public with complex problems around a policy topic, and to explore possible future actions from a multi-stakeholder perspective. Structured conversations produced in this way create innovative proposals, and help translate insight into action.

Participant Feedback

An interesting session was organized at the EU Policy Lab in September 2019, where already developed scenarios were adapted to a specific focus on climate change and carbon neutrality in 2030+ with draft policies modified accordingly. It showed that the game can be easily used to accommodate specific demands, policies and stakeholders. Adapting and customizing the game to a specific context and for different purposes was also stressed in the feedback from participants of other sessions. This was encouraging news to the project efforts, as the scenarios and engagement game were conceived of as being part of a tool set to help others examine more specific or localized governing futures. That the system was proven to be flexible to adaptation for more focused inquiries, meant that the project could have an impact beyond its initial intended audience. Additional modes of adaptation are covered in the future research portion of the paper.

Best Practices:

- Use legitimate policy proposals within the game to test reactions to, and elicit stakeholder feedback on proposed law and guidance.
- Replace project scenarios with organization-specific scenarios and use the game systems underlying mechanics and components to trace interactions and collaborations.

Discussion and potential future research paths

While raising the number of opportunities and approaches by which futures work can be conducted does not, by itself, increase participation, the embrace of new media, and use of parallel modes of interaction, does expand the fundamental accessibility of futures and foresight practices. At the onset of this paper, we hypothesized that similar to smartphones' capacity to make their underlying technical complexity approachable and useful, through good design practice, games might offer an opportunity to increase 'futures literacy' without the formal introduction of principles and theoretical foundations from futures studies. While we would not go so far as to claim that this game has accomplished this feat, we do think that lessons learned from the development and use of the game are instructive to future game designs, and that this goal, ultimately, remains worthy of pursuit as part of the larger effort to foster more future-oriented societies and systems of governance.

In addition, the embrace of more non-traditional modes of engagement may prove the avenue for moving additional voices from marginalized communities into both the foresight and policymaking processes, which can lead further towards the democratization of foresight and decolonization of futures (e.g. Galtung, 1970; Dator, 2005/1975; Inayatullah, 1993; Hayward and Candy, 2017; Miller, 2015). Already in 1969, Galtung and Jungk (1969) wrote about possible dangers of the "monopoly of power groups served by experts" when it comes to futures studies. This also relates to Jasanoff's (1990) and Haas' (1992) arguments over a 'privileged access' of experts to policymakers. Through sensitive design and creation of foresight activities, inclusive atmospheres can be bolstered and new perspectives on the future-oriented opportunities and demands harbored by the social periphery may become part of the mainstream policy conversation. It is precisely this design sensitivity that we attempted to bring to bear on this project and game, but there remains a significant political aspect that remains underdeveloped in this article.

'The future' is often understood as political, non-neutral and a contested space (Inayatullah, 2013a). From the perspective of critical futures studies, drawing upon Foucault's post-structuralism and social constructivism (Foucault, 1977, 1981), as well as the concept of governmentality (Foucault, 2000), the future could be seen as a social construction created through language and everyday practices. In the FuturGov game, engagement with different scenarios and the dialogue among participants allows "the continuous destruction and reconstruction of alternative futures" (Inayatullah, 1990) and reframing of their own assumptions about the future (Mukherjee et al., 2020). Through different interpretations of the future worlds (i.e. scenarios) given to participants as context conditions of the game, power and power structures can be examined and revealed. Along with that, sociotechnical imaginaries (Esrahi, 1990; Jasanoff, 2001, 2004) can be explored, i.e. how certain imaginations prevail and hold power over others in society, showing the importance of framings in policy discourse.

We suggest further observing 'the political' through an agonistic lens - Mouffe's framing of the ontological dimension of antagonism embedded in social order (Mouffe and Laclau, 2001). In this context, both this project and the FuturGov game might be viewed as modes of acknowledging the irreconcilable aspects of policy negotiation. In attempting to provide both research concerning anticipated contested issues, and the systematization through formal game design of hypothetical means and ways of different future governance, the project and game begin to open potential future 'politics' (Mouffe, 2005) to exploration. This, in turn, enables an improved understanding of how future actors might negotiate a democratic order that accounts for the ineradicability of antagonism. As far back as 1938, Johan Huizinga outlined the centrality of play (ludus) within creation of social orders, and particularly the 'agonistic' (competitive) approach to the interpretation of law via court 'games' (Huizinga, 2014). The conceptual work of approaching the embedded praxis of politics through games, and their reflection of more complex and competing social systems, deserves a deeper investigation with respect to the design and use of games to explore possible futures of policy making. Also, the utility of games to experiment with speculative forms of governance remains a potentially rich vein for future research, particularly for democratic systems and institutions that face new pressures from socio-technological change.

From the perspective of agonistic democracy, Westphal (2018, p. 205) further suggests that "the valuable potentials of democratic innovations consist in their capacities to bring about situations in which the status quo is effectively called into question and opportunities for defining new rules and forms of social order open up." In this context, the game can help reveal hegemonic practices in society, and restore "an understanding of the political [...] as necessarily conflictual and constituted by power (Ruitenberg, 2008). In fact, similar to other foresight games (e.g.

Sarkar, CLA, Polak games), FuturGov game serves to introduce the participants to other people's views and beliefs (Dator, 1975/2005, Milojevic, 2017). As the in-game economy stimulates negotiations and persuasions to reach collaborations among different social actors, gameplay also reveals conflicts and confrontations of actors' own worldviews. This echoes Tully's (2008) concept of dialogue as negotiating practice and his call for *audi alteram partem* - listening to the other side from whom something can always be learned and which can lead to a more inclusive and pluralistic politics.

In its current configuration, the FuturGov game utilizes the game economy to balance 'power' relationships by instituting starting conditions through which all player roles have an equal amount of resources to influence gameplay. To some extent, we could assume that in many of the game sessions, these initial conditions have enabled players to win using any of the games' roles, and have opened group play to construct, explore and alter new power relations within imagined futures as compared to traditional hegemonic structures. In our experience, the game winners often use roles - such as "activist", "voice of nature", "hacker" - that do not hold hegemonic power in the present and are often viewed as challenging contemporary political power structures and institutions. In this way, the participants can get practical insights into how different constellations of power relations may lead to different outcomes in the political sphere, as well as into the interplay between the "political" and "politics" in the "agonistic" public sphere (Mouffe, 1999). This is also a key to understanding and debating "privileged futures" and trying to 'decolonize' them (Dator, 1975/2005; Inayatullah, 2013).

While we view these initial results as highly interesting, we think there is additional potential in using the game's economy to explore socio-political power relations. Depending on the goals of game play, we believe that additional rule sets might be created based on situations or scenarios, to utilize the game's economy to introduce alternative theses regarding the incentives and capabilities of social actors to enact change through strategy and new types of collaboration. For example, by creating initial conditions that either reflect power relations we observe in the present, or simulate the relational power we would prefer to see in an aspirational future scenario, gameplay becomes a vehicle for deepening our understanding of the emergent power dynamics (cf. Inayatullah, 2013). These modes of gameplay have yet to be tested and codified, but can be approached through future research and prototyping of new rule sets.

Conclusion

The purpose of this article was to introduce the FuturGov game, and explore its potential as an addition to the library of serious games that are used to enhance and enable types of futures literacy, through deliberation and engagement on political and policy issues. This, consequently, means to increase political participation in a broader sense and share of ideas and active learning, i.e. contribute to the creation of new knowledge (Knowles, 2015; Chen and Hoffman, 2017; Pflanzl et al., 2016). The article reveals that "...indeed serious games could be a promising method for anticipating complex responses to processes triggered by policy regulation" (Olejniczak et al., 2018). In times when foresight gains a more prominent role in the European policymaking, using novel methods and tools such as FuturGov game can encourage new and future policies to be discussed, (re)designed by citizens and made more responsive to uncertain futures.

The FuturGov game shows that accounting for participants' anticipatory assumptions in game design can generate rich conversations, negotiations, and collaborations. This is in line with Ampatzidou and colleagues' (2018) findings that serious games can be seen as a new space and tool for engagement that can "contribute to the diversification of methods and tools", as they can make complex matters more easily understandable, and initiate discussions on important topics to support policymaking. However, besides opportunities for more engagement brought by serious games and other tools, in order for public deliberations to be more "institutionalized", it is key "to better understand how deliberative processes may or may not fit into the array of political institutions and practices that are themselves not inspired by deliberative norms." (Hendriks, 2012).

By designing a process through which player-participants immerse themselves into a future, take on new social roles, and strategize to achieve their goals, the FuturGov game generates an open, participatory setting in which a debate can take place, and productive interactions can be fostered. We agree with Sweeney (2017) and Milojevic

(2017) that this type of foresight game can expand the diversity of perspectives that can help create better and more decolonized futures (Dator, 1975/2005). Drawing from Dator's approach to games as pre-experiencing alternative futures (2017) and comparing games' use in social sciences to experiments in natural science, the FuturGov system has found additional uses as an educational tool to enable new modes of learning about governance, policy and politics, as well as encouraging the development of new skills, especially futures literacy (Inayatullah, 2017).

Based on feedback from both players and potential users of the game system, we assert that the game's design intent - as an instrument to promote and contribute to Futures Literacy (Miller, 2007) - has so far been successful. By 'using the future' to excite player engagement with the possibilities each scenario presents, and encouraging the accommodation of different perspectives, the FuturGov game creates opportunities for spontaneous and novel aspects of the future to emerge. It makes players think more of different futures and future possibilities and opens up imagination and creativity. Through playing the game situated in one of the scenarios that triggers engagement with images of the future, futures' literacy of participants can be fostered. As one of the players said: "The key is what the game play reveals in terms of people's hopes and expectations about the future."

Additionally, the game contributes to developing political literacy, allowing participants to experience and engage with complex systems and explore how different parts of it affect each other (Knowles, 2015). This all contributes to increasing critical thinking and reflection among players, and sustaining active learning as well as consequently active citizenship (Pflanzl et al., 2016). This has implications for citizenship education more broadly, and may help us learn more about how young people become politically engaged beyond traditional forms. We think that through continued use of the FutureGov game system, and modifications to its design, we can explore new approaches to the development of democratic values, gain insights into how younger generations see future relations between different social actors (Hopkins et al., 2019), and provide a way to include and promote a multiplicity of voices, some of which are often marginalized.

Following the discussion with game players as well as observations of the authors, the game has proven adaptable to a number of different contexts and use cases, from examining the design of policy, to investigating the evolution of stakeholder collaboration with respect to policy proposals and different starting conditions. This relates to Olejniczak et al. (2018) argument for using such games to test policy design in a "safe" environment and for creating "opportunities for innovative applications" through connecting serious games to policy design.

The initial version of the FuturGov game, including all assets, is available for free download, and the game is published under a creative commons license to grow a community around the game and its future mutations. In this paper, we have shown the utility of the game system to support increased participatory forward-looking policy creation in real world settings. Despite potential scalability challenges (Kimbell, 2019) as the call for greater citizen participation in foresight and governance grows, the FuturGov game can be a useful mode of playful engagement with citizens from all backgrounds, and in the first place young adults, in the very serious topics of social, governance and policy innovation.

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